

ABSTRACT

5 A transmitter uses an on-chip pattern generator to provide an input signal, and a built-in monitor to detect the power of the light emitted by the light source. The transmitter determines the correlation between the output power measured by an external power meter, and the output power detected by the built-in monitor. After the correlation is determined, the external power meter is no longer needed. Instead, further characterizations, such as over-temperature characterizations, are performed by determining the power detected by the built-in monitor, and then using the known correlation to calculate the actual power output and other transmitter characteristics.